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| 10/643,138 | 08/18/2003 | Cyrille de Brebisson | 200208573-1 | 3281 |

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| EXAMINER |
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PATEL, HETUL B

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| ART UNIT | PAPER NUMBER |
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2186

DATE MAILED: 08/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/643,138

Applicant(s)

DE BREBISSE, CYRILLE

Examiner

Hetul Patel

Art Unit

2186

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 7, 8, 11, 15 and 16 is/are rejected.
- 7) ☒ Claim(s) 5, 6, 9, 10, 12-14, 17 and 18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 09/02/2003.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-18 are presented for examination.
2. The IDS filed on 09/02/2003 has been received and carefully considered.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 11 recites the limitation "the computer" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 3-4, 7, 11 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Renneris (USPN: 5,784,628).

As per claim 1, Reneris teaches a method for storing data on a computer system, the computer system having volatile memory (RAM 18 in Fig. 1) and non-volatile memory (the secondary storage area (disk) 21 in Fig. 1), said method comprising identifying a first portion of the volatile memory that is being used to store data (i.e. the active memory including each device state and processor state); identifying a second portion of the volatile memory that is not being used to store data (i.e. the disk cache); and in response to an input corresponding to a power-off condition of the computer system (i.e. the power-off or hibernate condition), saving the data corresponding to the first portion of the volatile memory in the non-volatile memory without saving the second portion of the volatile memory in the non-volatile memory (e.g. see the abstract, Col. 4, lines 64-67 and Fig. 1).

As per claim 3, Reneris teaches the claimed invention as described above and furthermore, Reneris teaches that the disk cache memory gets flushed out before power off, i.e. the first portion of the volatile memory does not include disk cache (e.g. Col. 4, lines 64-67).

As per claim 4, Reneris teaches the claimed invention as described above and furthermore, Reneris teaches that a copy of the data corresponding to the first portion of the volatile memory is not also stored in the non-volatile memory prior to the identifying step, i.e. the active memory data including each device state and processor state (e.g. see the abstract).

As per claims 7 and 15, see arguments with respect to the rejection of claims 1, 3 and 4. Claims 7 and 15 are also rejected based on the same rationale as the rejection of claims 1, 3 and 4.

As per claim 11, see arguments with respect to the rejection of claim 1. Claim 11 is also rejected based on the same rationale as the rejection of claim 1.

5. Claims 1-2, 4 and 11 are rejected under 35 U.S.C. 102(e) as being anticipated by Atkinson et al. (USPN: 6,546,472) hereinafter, Atkinson.

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

As per claim 1, Atkinson teaches a method for storing data on a computer system, the computer system having volatile memory and non-volatile memory, said method comprising identifying a first portion of the volatile memory that is being used to store data; identifying a second portion of the volatile memory that is not being used to store data; and in response to an input corresponding to a power-off condition of the computer system, saving the data corresponding to the first portion of the volatile memory in the non-volatile memory without saving the second portion of the volatile memory in the non-volatile memory (e.g. see Col. 4, lines 49-55).

As per claim 2, Atkinson teaches the claimed invention as described above and furthermore, Atkinson teaches that the method further comprising compressing the data corresponding to the first portion of the volatile memory as first compressed data; and wherein saving the data corresponding to the first portion of the volatile memory comprises saving the first compressed data in the non-volatile memory (e.g. see Col. 3, lines 14-16).

As per claim 4, Atkinson teaches the claimed invention as described above and furthermore, Atkinson teaches that a copy of the data corresponding to the first portion of the volatile memory is not also stored in the non-volatile memory prior to the identifying step (e.g. see Col. 4, lines 49-55).

As per claim 11, see arguments with respect to the rejection of claim 1. Claim 11 is also rejected based on the same rationale as the rejection of claim 1.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 2, 8 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reneris in view of Kadatch et al. (USPN: 6,883,037) hereinafter, Kadatch.

As per claim 2, Reneris teaches the claimed invention as described above. However, Reneris failed to teach the further limitation of compressing the data

corresponding to the first portion of the volatile memory and saving the compressed data to the non-volatile memory. Kadatch, on the other hand, teaches about compressing the data before writing to the non-volatile memory so only a reduced amount of data needs to be transferred; therefore, it significantly reduces time to enter the hibernation mode (e.g. see Col. 6, lines 51-62). Accordingly, it would have been obvious to one of ordinary skill in the art at the time of the current invention was made to implement the step of compressing the volatile memory data before writing it into the non-volatile memory as taught by Kadatch in Reneris's method to achieve the benefits stated above.

As per claims 8 and 16, see arguments with respect to the rejection of claims 2. Claims 8 and 16 are also rejected based on the same rationale as the rejection of claims 2.

7. Claims 3, 7-8 and 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Atkinson in view of Reneris.

As per claim 3, Atkinson teaches the claimed invention as described above, but failed to teach that the first portion of the volatile memory does not include disk cache. Reneris, however, teaches that the disk cache memory gets flushed out before power off, i.e. the first portion of the volatile memory does not include disk cache (e.g. Col. 4, lines 64-67). Accordingly, it would have been obvious to one of ordinary skill in the art at the time of the current invention was made to implement the teachings of Reneris in the method taught by Atkinson. In doing so, only a reduced amount of data needs to be

transferred; therefore, it significantly reduces time to enter the hibernation mode without loosing any data since the data in the disk cache is already stored in the non-volatile memory, i.e. the hard disk. Therefore, it is being advantageous.

As per claims 7 and 15, see arguments with respect to the rejection of claims 1, 3 and 4. Claims 7 and 15 are also rejected based on the same rationale as the rejection of claims 1, 3 and 4.

As per claims 8 and 16, see arguments with respect to the rejection of claims 2. Claims 8 and 16 are also rejected based on the same rationale as the rejection of claims 2.

Allowable Subject Matter

8. Claims 5-6, 9-10, 12-14 and 17-18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hetul Patel whose telephone number is 571-272-4184. The examiner can normally be reached on M-F 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matt Kim can be reached on 571-272-4182. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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MATTHEW D. ANDERSON
PRIMARY EXAMINER